

## A B S T R A C T

## A DIRECT INJECTION TWO-STROKE ENGINE

5        A two-stroke engine having a combustion chamber (12), a cylinder (6) having an exhaust port (9) on which is centered a first diametral plane of the cylinder, a piston (4), a cylinder head (10) fitted with a sparkplug (11) on the same side as the exhaust port relative to a  
10      second diametral plane (P2-P2) perpendicular to the first, and an injector (20) adapted to spray a jet of fuel into the combustion chamber, which is on the other side of the second diametral plane, the jet injection axis (P) being at an angle  $\alpha$  from  $30^\circ$  to  $70^\circ$  to a  
15      transverse plane (T-T) of the cylinder and an angle  $\beta$  from  $+45^\circ$  to  $-45^\circ$  to the first diametral plane. The diffuser angle  $\gamma$  of the jet is from  $15^\circ$  to  $75^\circ$ , injection of fuel begins when the crankshaft (3) is from  $45^\circ$  to  $20^\circ$  ahead of closure of the exhaust port (9), and the  
20      injection pressure and the orientation of the jet injection axis are determined as a function of the flow of the gases to obtain a stoichiometric air/fuel mixture in the region of the sparkplug at the moment of ignition.

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35      Translation of the title and the abstract as published by the PCT Authorities, possibly after making changes, ex officio, e.g. under PCT Rules 37.2, 38.2, and/or 48.3.